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Report of the
Ontario Council
of Health on

1970
Supplement No. 3

~~Report of the activities - supplement to~~



Health Manpower

The Need for Family Physicians or General
Practitioners for the Province of Ontario

Assistance for the Primary Care Physician

Ontario Department of Health
Honourable A. B. R. Lawrence, M.C., Q.C., Minister

**HEALTH
MANPOWER**

REPORT OF
THE ONTARIO

DEPARTMENT OF HEALTH

HEALTH
MANPOWER

1970

Supplement 1969

ONTARIO DEPARTMENT OF
HEALTH, TORONTO, ONTARIO, CANADA

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THE
ONTARIO
COUNCIL OF HEALTH

on

HEALTH
MANPOWER

1970

SUPPLEMENT NO. 3

ONTARIO DEPARTMENT OF HEALTH
Honourable A. B. R. Lawrence, M.C., Q.C., Minister



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THE ONTARIO COUNCIL OF HEALTH

The Ontario Council of Health was formed in 1966 as the senior advisory body on health matters to the Minister of Health and, through him, to the Government of Ontario. Council submits recommendations designed to support the overall thrust toward improved health services and it serves as a sentinel to ensure effective and economical employment of the human and physical elements required to provide these services.

The members of Council are selected to reflect a reasonable balance of public interest, expert knowledge, experience, and geographic distribution. In keeping with Council's ongoing role, members are appointed for three years on a rotational basis and may be reappointed once.

Council determines its work priorities through assessment of provincial health services requirements, tempered from time to time by more urgent requests. The successful completion of its assignments is dependent upon the able assistance of committees, sub-committees and task forces manned from the ample reservoir of health interest and expertise to be found in individuals throughout Ontario.

MEMBERS OF THE ONTARIO COUNCIL OF HEALTH

K. C. Charron, M.D., LL.D. (ex officio, Chairman)	Deputy Minister of Health and Chief Medical Officer
S. W. Martin, F.C.I.S., F.A.C.H.A. (ex officio, member)	Chairman, Ontario Hospital Services Commission
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THE ONTARIO COUNCIL OF HEALTH IN 1970

A first "Report on the Activities of the Ontario Council of Health" was published during 1970. It consisted of a summary document with eight separate annexes containing individual committee reports and recommendations as acted upon by Council. The period covered was from Council's formation in 1966 through the calendar year 1969.

SUPPLEMENTS FOR 1970 – GENERAL

The initial report has proven useful to many individuals and groups concerned with the health care of the people of Ontario. It was therefore decided to make available the major committee reports and recommendations which were processed through Council during 1970. This was substantially a continuation of the work initiated during the first report period, relating directly to committees identified in the annexes. Therefore, it was decided to issue the new report in the form of nine separate supplements, of which this document is one. These supplements, cross-referenced to their original annexes by title, are listed below:

Supplement No. 1

Regional Organization of Health Services

Part II – A Proposed System

Supplement No. 2

Health Statistics

Part II – Implementation of a Health Statistics System

Supplement No. 3

Health Manpower

A. The Need for Family Physicians and General Practitioners for the Province of Ontario

B. Assistance for the Primary Care Physician

Supplement No. 4

Library and Information Services

Library Personnel, Manpower and Education

Supplement No. 5
Health Care Delivery Systems
Community Health Care

Supplement No. 6
Health Care Delivery Systems
Rehabilitation Services

Supplement No. 7
Health Care Delivery Systems
Laboratory Systems

Supplement No. 8
Health Care Delivery Systems
Dental Care Services

Supplement No. 9
Health Care Delivery Systems
Role of Computers in the Health Field

1970 SUPPLEMENT – HEALTH MANPOWER

Since the publication of the original annex that dealt with health manpower, the Manpower Committee has produced two further reports covering specialized aspects of medicine and nursing, as well as continuing its general study of all forms of health manpower as further information became available. Council approved the recommendations as set forth in these reports.

The two specialized reports produced during the last year concerned (a) "The Need for Family Physicians or General Practitioners" in Ontario* and (b) "The Role and Work of the Nurse Physician Assistant."

The report on the need for Family Physicians, presented to Council in January 1970, endeavours to foresee how such a doctor

* *A note on nomenclature:* There are three recurring titles in the following reports: family physician, general practitioner, and primary care physician. The first two are given in the title of the paper in which the Committee is considering the future supply of physicians who provide initial, comprehensive and continuing health care services. (For the purposes of the paper, the terms "family physician" and "general practitioner" are considered synonymous.) The third term, "primary care physician," includes the first type of practitioner and some specialists who provide the initial contact with health services for the public in addition to consultative and referral services to other physicians.

will practise when he has a complement of assistants, including the Nurse Physician Assistant. The general concept is that such physicians will work in "clusters" or community health centres and that the employment of a range of assistants will enable any given number of general physicians to see a larger number of patients and to dispense a better quality of health care. The need for easy access to the medical care system, without admission to hospital, is pointed out. Problems of "transportation" and "home care" are also considered, and recommendations are made as to how many of these objectives might be encouraged and assisted.

The report on the Nurse Physician Assistant, presented in November 1970, covers the definition of the functions of such a person, the programme of educational preparation, selection of candidates, and estimates of numbers to be trained.

OTHER AREAS OF COUNCIL ACTIVITY

It will be noted that 1970 supplements to three annexes of the first report have not been issued — Physical Resources, Education of the Health Disciplines, and Health Research:

Physical Resources

In the original annex, the Committee reviewed the current situation and the related services in Ontario which affect physical resources; it highlighted some of the difficulties which exist with respect to the components of the present pattern and made certain recommendations. This completed Council action in this important area, at this stage.

Education of the Health Disciplines

Continued study has been carried out by the Committee. This has been directed primarily toward assessment of the educational requirements for the rehabilitation disciplines and a further report in the area of nursing education. These documents will be completed for presentation to Council in 1971.

Health Research

The Committee on Health Research has continued its work on the definition of the provincial role in health research. It has been devoting its attention particularly to such areas as the economics of

health research; the co-ordination of health research programmes within the province, sponsored by both governmental and voluntary agencies; and the personnel support requirements needed to maintain a viable health research programme. It is anticipated that these matters will be completed in 1971.

The Committee has continued to provide direct advice to the Province on applications for financial assistance, through its Sub-committees on Research Grants Review and Demonstration Models.

During 1970, the Council initiated activity and is developing reports in the following areas:

Audio Visual Systems

The Sub-committee on Audio Visual Systems began work in March, looking into provincial requirements for instructional media systems in the education of the health disciplines, health services, and public health education.

Perinatal Problems

The Sub-committee on Perinatal Problems was established in May to give consideration to problems surrounding birth and affecting either/or mother and infant, and developing proposals for improved health services in this area.

Environmental Quality

A primary Committee on Environmental Quality was set up in October to make recommendations to the government on all matters related to the quality of the human environment, with special consideration to the health and well-being of people.

Future Arrangements for Health Education

In November, Council approved the establishment of a task force to investigate the need for a new medical school/health sciences centre, giving due consideration to new approaches to health education. The relation of health education to health services and the effect of this on the community, not the projected manpower requirements alone, will provide the basis for the study.

Two other undertakings by Council should be noted:

Committee on the Healing Arts Review

A special request was made to Council in June to review the Report of the Committee on the Healing Arts. A review group was established and it reported to Council in November. It proposed certain basic principles related to the regulation and education of the health disciplines and these, as approved by Council, were submitted to the Minister of Health.

Conference on Co-operation in the Provision of Health Services

In April, Council took an active part in a Conference on Co-operation in the Provision of Health Services, sponsored by provincial bodies representing the various health disciplines, consumers, and the Department of Health. In the public interest, it is Council's policy to consult freely with representatives of health professions, related organizations, and others who share the common bond of seeking the best possible health services for the people of Ontario. This process also occurs as part of the work of the committees of Council.

MEMBERS OF COMMITTEE ON HEALTH MANPOWER

Dr. E. H. Botterell, Chairman	Dean, Faculty of Medicine, Vice-Principal (Health Sciences), Queen's University, Kingston
Dr. R. M. Anderson	Director, Medical Care Unit, Queen's University, Kingston
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Mr. S. W. Martin	Chairman, Ontario Hospital Services Commission, Toronto
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ACKNOWLEDGEMENTS

Technical support in the preparation of this report was provided through the auspices of the Research and Planning Branch of the Ontario Department of Health. Under Dr. G. W. Reid, Director, the following staff members worked with the Committee:

Dr. A. H. Sellers	Assistant Director
Mr. G. C. Clarkson	Senior Research Officer (Manpower Economics)
Mr. W. Harper	Senior Operations Research Officer
Dr. S. R. Lang	Research and Planning Officer (Medical)
Dr. E. D. McEwan	Research and Planning Officer (Medical)
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Additional technical support was received from:

Miss N. I. Grigg	Director of Statistical Research Division, Ontario Hospital Services Commission
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Special presentations were given by:

Dr. F. B. Fallis	Chairman, Sub-committee on Community Health Care, Ontario Council of Health
Dr. Donald I. Rice	Executive Director, College of Family Physicians of Canada

- Dr. Bette Stephenson Vice-President (1969), Ontario
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- Dr. C. M. Warren Executive Director, Ontario Chapter,
 College of Family Physicians of Canada

Recommendations

RECOMMENDATIONS

Supplement No. 3

HEALTH MANPOWER

COUNCIL ACTION

The Ontario Council of Health has approved the recommendations of the 1970 reports of the Committee on Health Manpower, as listed below:

RECOMMENDATIONS

Section A – The Need for Family Physicians or General Practitioners for the Province of Ontario

1. THAT the immediate investigation of legislative and educational action, and initiation of discussion with the Ontario Medical Association and the College of Family Physicians of Canada, the Registered Nurses' Association of Ontario, the College of Physicians and Surgeons of Ontario, and the College of Nurses of Ontario, be undertaken with a view to making available registered nurses, as nurse physician assistants and nurse physician associates and midwives, for the family physician (general practitioner, internist, paediatrician and obstetrician).
2. THAT economic incentive be provided to encourage the formation of clusters of physicians with allied health personnel, and their housing in community health centres, both in sparsely populated areas and in towns and cities.
3. THAT the full fiscal and professional recognition of qualified family physicians as specialists in family medicine be promoted.
4. THAT a full-time research team be created to study the needs, and problems, involved in the delivery of primary care to the people of Ontario.
5. THAT appropriate pilot projects be initiated.

6. THAT the number of full-time general practitioners or family physicians required be in the ratio of 1 family physician for each 1,500 of population: range 1/1,000 to 1/2,000. This may be modified by changing patterns in the future.

Section B – Assistance for the Primary Care Physician

1. THAT demonstration models of practice arrangements, in which nurse physician assistants work with primary care physicians in providing health care services, be established.
2. THAT, in demonstration practice settings, the role, work and efficiency of the nurse physician assistant vis-à-vis patients, the physician, other members of the nursing team, and other community health resources, be described and documented.
3. THAT methods of payment for the nurse physician assistant's services be studied in the early phases of any demonstration project.
4. THAT the Ontario Department of Health provide leadership in obtaining counsel on the legal aspects of the work of the nurse physician assistant.
5. THAT pilot programmes of training for the nurse physician assistant be established within health sciences complexes to capitalize on available clinical, educational and research resources.
6. THAT an advisory committee for each pilot project be established with the responsibility to define the aims of the programme and its ongoing evaluation.
7. THAT the advisory committees, referred to in Recommendation 6, work with the health sciences complexes and hospitals and/or associated Colleges of Applied Arts and Technology to plan a suitable curriculum for educational programmes for nurse physician assistants at the earliest possible date, and receive fiscal support to do so.
8. THAT the diploma registered nurse and the degree registered nurse be assessed and compared as to their respective educational needs, as to their potential for development as nurse physician assistants, as to time, course content and relative

cost with respect to training programmes.

9. THAT, in the initial phases of the demonstration programmes, in the practising team the ratio of physician to nurse physician assistant of one-to-one be used, and that the feasibility of this ratio be tested in the light of work experience.
10. THAT of the order of 100 nurse physician assistants be prepared in 1971 through the proposed pilot project programme.
11. THAT a survey of a cross section of family practitioners in the Province of Ontario be undertaken to determine potential future vacancies for nurse physician assistants.

Report of the Committee

Section A

THE NEED FOR FAMILY PHYSICIANS OR GENERAL PRACTITIONERS FOR THE PROVINCE OF ONTARIO

SECTION A

The Need for Family Physicians or General Practitioners for the Province of Ontario

I. ASSUMPTIONS

The professional activities of the family physician* or general practitioner* will change remarkably over the next 20 to 30 years. Our Manpower Committee believes the conventional solo general practitioner of 1950-1970, conducting a practice with patients unrestricted by age or by the nature of their disease, will be almost unknown in the twenty-first century.

Public Demand for Medical Services

Increasingly, the demand of the public, as the general level of education advances and the style of living changes, will be for professional services from individuals with full or "special" qualification in their field of medical science, including the behavioural sciences. We live in the midst of the biological revolution. In the near future, the majority of people, those under 25 years of age, will understand and accept readily the requirement of modern medical science, which requires taking the patient to the scientific resources rather than a doctor without resources to the patient. The majority of people will accept readily medical "assistance" and care from a wide variety of doctors' assistants working under the direction and supervision of a doctor. The spectrum of assistants includes the nurse, the wise secretary with or even without special health educational qualifications, technologists, social workers, clinical

* The terms "family physician" and "general practitioner" are used interchangeably.

psychologists, midwives, ophthalmic technicians, "outpost nurses" et al. Patients, with increasing willingness, will accept treatment by physicians other than their "own" doctor, in keeping with the trend of the shorter work week and work day.

Rising expectations for ever better results from health care will be a continuing demand by the citizens of the last quarter of the twentieth century. Substantial advances already made in basic medical science and the biological sciences are awaiting the implementation needed to apply them to patient care.

Health Services

The rural poor and the people in the sparsely populated and isolated areas in northern, western and eastern Ontario are second-class medical citizens because of the local unavailability of medical services. The economically disadvantaged citizens of towns and cities, although surrounded by massive medical resources of high quality, not uncommonly are also second-class medical citizens. This is because of the difficulty which exists for them to gain entry to the system of health care delivery; three or four children under ten years of age, no automobile, and no sitter, make the visits to the doctor or hospital, and long waits in clinics, well-nigh impossible.

The greatest migration in Canada's history from the country to the cities and towns is continuing and probably will continue for some time. The remarkable mobility of families, and the high divorce rate, suggest a considerable reduction in the significance of the concept of the comprehensive ongoing family physician. Major doubts must be cast upon the likelihood of sons and daughters, from their early teens on, placing their trust in *their parents' family physician*. Adolescent medicine, perhaps even more than geriatrics, is in need of reinforcement.

Family Physicians – General Practitioners

The Manpower Committee believes that the role of the physician isolated from his colleagues and from modern medical resources is incompatible with first-class patient care and that such a role is unacceptable to the contemporary medical graduate with proper postgraduate medical education for family practice.

We believe Ontario is entering the age of geographical "*clusters*" of family physicians practising together as individuals or as formal

members of a group practice in a community health centre. Each cluster will be supported by nurse doctor assistant or associate, paediatric nurse associate, midwife, public health nursing service, and medical social workers. Dentists and auxiliary dental personnel should be located in these centres.

The cluster of doctors will likely consist of a minimum of four, and often six or eight doctors, working together in an appropriate building with necessary laboratory and X-ray resources.

As backup, the cluster will have a formal relationship with a major hospital and regional laboratory centre, and computer services, and will be organized to serve general and traumatic surgery, general medicine, paediatrics, obstetrics and gynaecology, and psychiatry. Each member of the cluster of primary physicians will have a special interest, with or without certification as a specialist, which he can encompass to his own satisfaction. It also seems likely, as described later, that the individual general practitioners forming the cluster will restrict their practice by patient age or nature of the disease, in varying degree. This arrangement will lead in turn to easy cross referral of patients and consultation within the cluster, as well as with the staff of the major hospital.

For a cluster of general practitioners in a northern or rural community health centre to provide first-class care, the district it serves requires a universally available telephone or radio-telephone communication system. A helicopter, as well as highway ambulance service, should provide rapid and effective evacuation of patients from district to community health centre and from centre to base hospital. The doctor should be able to reach patients in a district by road and air. The nurse doctor assistant, nurse doctor associate, and midwife, backed up and supervised by the cluster of family physicians of the community health centre, will provide first-line patient care. The doctor's assistant also has need of air and highway transportation. Two-way closed circuit television from community health centre to base hospital should be a regular resource, particularly in isolated communities. An interesting example is the infirmary in Boston airport, isolated in long rush hours.

Regarding Patterns of Practice of General Practitioners or Family Physicians

The doctor commonly restricts his practice in one of the following ways:

1. By eliminating infants and small children, when another family physician is taking a special interest in infants and small children, or a paediatrician is conducting an age-restricted general practice.
2. By excluding all obstetrical and surgical practice.
3. By excluding infants and small children, obstetrics and surgery.

This last individual is well qualified in internal medicine and capable of patient care in the home, office, and hospital; he will accept major medical geriatric problems in addition to "well geriatrics." He will undertake genetic counselling, preventive and community medicine, and psychiatric problems largely of the psychosomatic type.

The paediatrician conducting an age-restricted general practice, and the general practitioner oriented to medicine in adults and older children, will likely be the specialists in general practice of the future. By Dr. Mawhinny's definitions, they are restricting their practice by age and by medical problem.

4. The general practitioner also may choose to major in obstetrics and gynaecology, reducing substantially his commitment to internal medicine, surgery and paediatrics. We believe he must achieve, personally, a *minimum* number of deliveries per year: probably not less than 50. Working under his supervision should be a midwife.
5. The general practitioner may choose to major in behavioural problems, in psychosomatic medicine, and psychiatry with special interest also in medicine. Such a doctor would not likely be involved in obstetrics and gynaecology, paediatrics and surgery.
6. The doctor with a major interest in paediatrics could be anticipated to have a special interest in internal medicine and to eliminate obstetrics and surgery from his practice.
7. There remains isolated and remote communities where the general practitioner must be qualified as a generalist. This practice will include the widest spectrum of medical, surgical and obstetrical and paediatric problems, and consultant and base hospital backup will not always be readily available.

Regarding General Practice Carried on by Specialists

Progressively, as the general level of education rises, patients will seek medical assistance directly from doctors reputed to possess special knowledge and skills. A limited enquiry among ten rural general practitioners, in an economically disadvantaged area of Ontario, indicates that this is presently the case. Patients attend more than one general practitioner and seek out specialists independently without referral.

An unknown number of oculists, otolaryngologists, obstetricians and gynaecologists, paediatricians, urologists, internists, and general and orthopaedic surgeons, are among the specialists who carry an unknown volume of general practice.

Internists and Paediatricians as Age-restricted and Problem-restricted Family Physicians

Evidence has not become available concerning:

- a. The proportion of family care provided by certificated internists and certificated paediatricians and, even to some extent, certificated surgeons.
- b. The proportion of the time of certificated internists and certificated paediatricians devoted to primary or family doctoring has not been reliably established.

It was recently stated that 67 of 70 practising paediatricians in Toronto, on the staff of the Hospital for Sick Children, were in fact age-restricted primary physicians or general practitioners, and the upper age limit was 21 officially.

Towns and Cities – “Transportation”

Helicopters are not yet a major part of the answer to a better system of health care delivery in towns and cities of Ontario. Means must be provided for the economically disadvantaged people of the cities to gain easy access to the medical care system without admission to hospital. The nurse, medical assistant, social worker and public health nurse require backup in the form of transportation for parent and/or child patients, of home-makers and of sitters. That is to say, the system must reach out to the people and provide the means of bringing them to health centres or hospital when indicated.

Home Care

Both in rural and urban areas, the introduction of Home Care programmes supported, e.g., by the doctor assistant or public health nurse working under the direction and supervision of the general practitioner, will reduce the demands upon the doctor. (Fyles, Winnipeg.)

Primary Care Manpower Needs for Family Physicians – Summary

The number of general practitioners required must be considered in relation to the system of health care, to the numbers of allied health personnel, and to the communication and transportation system. Doctors, ordinarily, will choose to practise where modern medical scientific resources are available for their patients while, in turn, permitting the maintenance of their skills. Doctors can be persuaded to engage in family practice, including obstetrics, limited surgery and paediatrics, only for limited periods, *at sites not of their choosing*, even with substantial monetary rewards.

II. DATA HIGHLIGHTS

The Supply of Family Physicians in Ontario

1. Ratio of family physicians to population, from the last available complete tabulation of the Ontario College of Physicians and Surgeons:

Ontario (1967) – 1/1,377
Metro Toronto (1967) – 1/1,063
2. Ratio suggested by Dr. F. B. Fallis for a family physician working with the assistance of adequate auxiliary personnel: 1/1,000
3. Ratio suggested by Dr. D. I. Rice for the average family physician working alone: 1/2,000
4. Target gross ratio for all practising doctors, used by the Manpower Committee for 1985-86: 1/680
5. Output of family physicians required from all sources in order to maintain a ratio of 1/1,500 – 250 per annum.

6. Approximate indicated "planned output capacity" in family practice of Ontario medical schools by 1974-75: 113 per annum, i.e., Family Practice Residence Programmes.
7. A number of non-specialist practitioners will enter general practice from other, traditional sources: one-year internship (rotating, mixed, straight) and residency programmes.

III. RECOMMENDATIONS

RECOMMENDATION 1

THAT the immediate investigation of legislative and educational action, and initiation of discussion with the Ontario Medical Association and the College of Family Physicians of Canada, the Registered Nurses' Association of Ontario, the College of Physicians and Surgeons of Ontario, and the College of Nurses of Ontario, be undertaken with a view to making available registered nurses, as nurse physician assistants and nurse physician associates and midwives, for the family physician (general practitioner, internist, paediatrician and obstetrician).

RECOMMENDATION 2

THAT economic incentive be provided to encourage the formation of clusters of physicians with allied health personnel, and their housing in community health centres, both in sparsely populated areas and in towns and cities.

RECOMMENDATION 3

THAT the full fiscal and professional recognition of qualified family physicians as specialists in family medicine be promoted.

RECOMMENDATION 4

THAT a full-time research team be created to study the needs, and problems, involved in the delivery of primary care to the people of Ontario.

RECOMMENDATION 5

THAT appropriate pilot projects be initiated.

RECOMMENDATION 6

THAT the number of full-time general practitioners or family physicians required be in the ratio of 1 family physician for each 1,500 of population: range 1/1,000 to 1/2,000. This may be modified by changing patterns in the future.

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Section B

ASSISTANCE FOR THE PRIMARY CARE PHYSICIAN

SECTION B

Assistance for the Primary Care Physician

I. FOREWORD

The Role and Work of the Nurse Physician Assistant

The purpose of this paper is to identify the Nurse Physician Assistant as a person complementing the primary care physician in the provision of health care services. Few of these persons actually exist and their work, function and means of preparation are subjects of much discussion and debate. The Committee, however, believes the emergence of this person is a major feature of the changing world of health care services arrangements and patterns and so, in this paper, presents its views and recommendations as a baseline and trusts they will serve as guidelines for further discussion among interested persons in Ontario.

II. INTRODUCTION

For the past two years, the Manpower Committee of the Ontario Council of Health has been studying the arrangements by which health personnel and ancillary workers are providing assistance for the primary care physician. By "primary care physician" the Committee means those physicians who provide the public and ambulatory patients with the initial point of contact with health services, episodic care and possibly comprehensive and continuing health care. The term includes family practitioner and those

specialists who provide general practice services for some of their patients (the internist, general surgeon and obstetrician and gynaecologist are examples).

The Committee is concerned that primary care physicians are becoming increasingly hard pressed as they attempt to serve an ever widening spectrum of health care.^{1, 2, 3, 4} In addition to providing medical services, physicians are expected to emphasize health maintenance, disease prevention, health education, family counselling (genetic, drug, family planning, marriage, geriatric counselling) and act as a personal or family health care co-ordinator. The College of Family Practice states⁵ the role of the family physician to be:

" . . . one who is trained to provide primary, continuing, comprehensive medical care to any or all members of the family, using the available ancillary and consulting services to ensure exemplary medical care."**

To serve better their patients, many primary care physicians have evolved practice arrangements both in regard to patterns and the employment of other personnel. It is timely to describe briefly such arrangements under two headings:

1. Practice Patterns

Many practitioners have made mutual agreements for the coverage of off hours, sick time, holidays and urgent and emergency call services. Others have formed partnerships or group practice arrangements of varying sizes⁶ as to numbers, with a view to employing ancillary services to provide more complete care for ambulatory patients, in addition to the personal reasons as stated above. Many physicians have established the appointment system and have altered the physical arrangements of their offices⁷ to provide for a more efficient pattern of practice.

Over the years, a network of physicians' services has been evolved to ensure that the primary care physician has ready access to consultations by specialists for his ambulatory patients.

* College of Family Physicians of Canada, *A Manual on Training in Family Medicine*, (Toronto: College of Family Physicians of Canada, 1967), p. 4.

2. Assistance from Other Personnel

In the utilization of other personnel, either directly or by referral, the primary care physician has evolved equally important arrangements. Most physicians no longer dispense in quantity their own medications; the local pharmacist serves the doctor and his patients in these matters.

Most physicians employ a receptionist-cum-bookkeeper and/or lay assistant who relieves him of much of the routinized work involved in office practice. A number of group practices and group health associations^{8, 9} are staffed not only by family doctors and other physician specialists but other qualified health care personnel including nurses, physiotherapists, laboratory and X-ray technologists and medical secretaries.^{10, 11}

An important source of assistance is to be found in the person of the office nurse. According to the Canadian Nurses' Association,¹² in 1969 there were employed in doctors' and dentists' offices in Ontario 1,486 registered nurses. The College of Nurses of Ontario reports¹³ that in 1969 there were 217 registered nursing assistants employed in physicians' and dentists' offices. With the exception of this information, little of a substantive nature is known as to the actual work done by office nurses or to what extent they provide for a more efficient office practice. It is not surprising then that the role and work of the office nurse has not been defined or prescribed in any way nor do there exist any preparatory programmes for such a person. If, as the Committee suspects, the office nurse provides as valuable assistance as do other kinds of nurses in the hospital setting, then role and work studies should be performed. The Committee will come back to this point later.

There exists a range of community health and social services available on referral or consultation to the physician which can, therefore, be considered other sources of assistance. The quality and quantity of assistance^{10, 14} provided by personnel staffing such services (home care programmes, visiting nurses, public health nursing, school health and social services are examples) varies with the degree to which the physician is aware of these services, appreciates the competence of the personnel concerned, and feels he can trust his patients to them upon referral or consultation.

III. RECENT DEVELOPMENTS

In the last half of the sixties, a number of new developments in the matter of providing assistance to the primary care physician have taken place.

In Ontario there is some indication that nurses are providing assistance in primary contact care under new arrangements. Jones describes a project designed to facilitate co-operation between the family doctor and the public health nurse.¹⁵ The public health nurse is assigned to work with patients of a number of doctors rather than a territory. A similar project in London is described in an article by Hutchison and Mumby.¹⁶ Although there is no documentation of other locations where primary care physicians are using nurses more fully to deliver health care, it is understood that these two instances are not alone.

Since 1968, there have been emerging, in London, Hamilton, Toronto, Kingston, and Ottawa,^{11, 17, 18} examples of new practice arrangements in which the nurse, acting under the supervision of the physician, assumes a wider range of functions and work within the practice pattern. Through these arrangements, nursing* is being brought to the physician's office, complementing the work of the physician in providing the spectrum of health care. Few published reports of these arrangements are available. However, a comprehensive report of a seminar held at the University of Western Ontario in May 1970, on new working arrangements for physicians and nurses, is expected to be available before Christmas, 1970. At this meeting, nurses from across Canada who were working with physicians in new practice patterns, and a few of the physicians themselves, met to discuss mutual problems and examine ways and means of further development in these areas.

These new arrangements, diverse and varied, are still largely in the developmental stages but two patterns seem to be emerging.

* Nursing contributes to the overall goal of health services in which planned, co-ordinated efforts create conditions for a healthier, more self-fulfilling life. The specific goal of nursing is to help the patient achieve a state of comparative comfort and well-being by assisting "the individual, sick or well, in the performance of those activities contributing to health or its recovery that he would perform unaided if he had the necessary strength, will or knowledge,"¹ thus allowing the individual to mobilize his own resources — physical, social, emotional, environmental, economic — to attain and maintain health. Nursing uses psycho-motor, human relations and intellectual skills.

¹V. Henderson, *ICN Basic Principles of Nursing Care*, (London: International Council of Nurses, 1960), p. 3.

First, the public health nurse is working "on attachment" to the primary care physician's office; as such she is bringing public health nursing practice to the physician's office and also providing him with efficient community services liaison. In the second, the registered nurse is providing a broad range of nursing care services to complement medical care services and is assuming more responsibility in giving continuing health care; she works in the physician's practice setting. Titles always mean something and in the first instance it appears that the title "Public Health Nurse" is likely to persist. In the second instance, however, numerous titles have been suggested: "Community Nurse," "Physician's Assistant," "Physician's Associate," "Nurse Practitioner," "Nurse Physician Assistant." The Committee proposes the title "Nurse Physician Assistant."

In Britain over the past few years, changes in practice patterns have taken place in many instances. Health centres are multiplying in number, the health visitor and district nurse attachment programmes have grown in extent and more doctors are renovating their office facilities and employing nurses and ancillary office staff. A number of reports^{19, 20, 21} suggest that a saving of physician time and the provision of more comprehensive care accrue from such arrangements.

Briefly, in the United States there are instances of nurses working in new ways²² and of new personnel being developed as assistants to the physician. The paediatric nurse practitioner (Colorado),^{23, 24, 25, 26} the paediatric associate (Colorado),^{27, 28} the Duke Assistant (North Carolina),^{29, 30, 31, 32, 33, 34} the Medex (Washington State),^{35, 36} and the public health nurse as a first contact person in various neighbourhood health centres (the Bronx, Watts),³⁷ are examples of what is occurring south of the border.³⁸

In passing, it is interesting to note that in Russia the *feldscher*,^{39, 40} who in many communities has practised in quite an independent manner, is being brought under more direct supervision by the physician.

On review then, the Committee believes that the primary care physician in Ontario is in need of wider assistance in providing health care to patients. He needs help in performing certain tasks, in managing common or stable chronic conditions, in working toward the better understanding of health matters on the part of the patient and public, in co-ordinating the various members of the health team,

and in liaising with other community personal and family services.

For the Ontario scene, considering recent developments, the availability of competent and willing manpower, the length of time to prepare personnel, the costs involved, the urgency of the situation, and — almost most important of all — probable public acceptance,^{41, 42} the Committee recommends the development of the nurse physician assistant as an appropriate person to work with the primary care physician toward the provision of comprehensive health services.

RECOMMENDATION 1

THAT demonstration models of practice arrangements, in which nurse physician assistants work with primary care physicians in providing health care services, be established.

In the next sections, the role, work arrangements and a programme of preparation for the nurse physician assistant, which the Committee trusts will form basic and useful guidelines for further study and discussions, are suggested. Finally, criteria for the selection of candidates for preparation and manpower estimations are offered together with recommendations.

IV. THE NURSE PHYSICIAN ASSISTANT'S ROLE

Looking at the work of the nurse physician assistant in another way, her actual practice pattern might be as follows:

1. Before the physician interviews the patient:

The nurse physician assistant takes the appropriate history and performs those parts of the physical examination as indicated. She then describes her findings and so identifies the problem, at which point she may refer the patient to the physician or manage matters herself under the supervision of the physician (see 3 below).

2. Following the physician-patient interview:

The nurse explains in detail and "tailor makes" the prescribed therapeutic plan and follows the patient in a continuing way as indicated. She may, on the other hand, perform certain tests and

therapeutic procedures or lay out a programme of immunization or allergy desensitization which she will carry out over the weeks and months ahead.

Health education may be indicated in the case of nutrition and food buying or preparation, or in matters of growth and development or aging. The nurse physician assistant may refer the patient to other services: diagnostic, rehabilitative, educational, social; she may consult with other members of the community nursing team (P.H.N., V.O.N.) if indicated.

3. Independent activities under the physician's supervision:

She will conduct ante-natal, post-natal, and well baby examinations. She will provide ongoing supervision of patients with stable chronic conditions.

The nurse may develop expertise in certain aspects of health care such as adolescent health care counselling, group classes for expectant mothers, home care, or care of the aged and so further develop the practice thrust toward health maintenance and disease prevention.

4. In the temporary absence of the physician:

In emergencies, the nurse will provide first aid and/or refer patients to the appropriate physician, X-ray or hospital emergency department, manage the office routine both as to patient care and supervision of office employees.

The Committee suggests that the above work outline contains many of the core elements of the role and work of the nurse physician assistant. It is not an all-inclusive outline. Practising doctors and nurses will find certain aspects being emphasized, some aspects inappropriate to a particular practice or community, or the need for other functions or tasks to be introduced. Nurse physician assistants may vary, as do primary care physicians, as to areas of interest, competence or expertise, which in the long run shape the "type" or "form" of practice. However, it is believed that there will emerge in the near future a generally identifiable type of person who will come to be known as "the nurse physician assistant." The Committee believes therefore that the documentation of the work and role of the nurse physician assistant should be described and documented even in present or proposed demonstration arrangements.

THE NURSE PHYSICIAN ASSISTANT'S ROLE

The following outline relates aspects of health care to the more particular functions and tasks which may be assumed by the nurse physician assistant working under the supervision of a physician. It points up the "why," "what" and "how" of her work.

Aspects of Health Care	Functions	Examples of Tasks
A. Health Maintenance <ul style="list-style-type: none"> 1. health education and maintenance. 	<ul style="list-style-type: none"> 1. provides information. 2. explains need for food, rest, recreation, hygiene in relation to individual situations. 3. explains various stages of life—growth, development, reproduction, aging. 	<ul style="list-style-type: none"> 1. interprets health guidelines and community resources. 1. provides and interprets diet sheet for aged patient. 2. helps young mother with family schedule to allow her a rest period. 1. anticipates and explains changes during pregnancy. 2. anticipates and explains changes during aging. 3. anticipates and explains changes during normal child development. 1. gives routine immunization injections. 1. provides information about home hazards. 2. provides information and counselling about family planning.
B. Illness and Disease <ul style="list-style-type: none"> 1. early detection of disease. 	<ul style="list-style-type: none"> 1. carries out preventive procedures. 2. teaches individuals and groups, where appropriate. 	<ul style="list-style-type: none"> 1. carries out general inspection of patients. 1. weighs, measures and tests co-ordination. 2. tests for growth and development milestones in infants and children.

Aspects of Health Care	Functions	Examples of Tasks
	<p>2. carries out particular inspections during certain stages of life.</p> <p>3. records information required by physician for overall patient care.</p> <p>4. carries out routine screening tests.</p> <p>5. prepares patient for special tests to be carried out.</p> <p>2. secondary prevention of disease.</p>	<ul style="list-style-type: none"> 1. weighs, measures and examines neo-nates. 2. carries out routine ante-natal and post-natal observations. 1. takes and records health/illness history at initial visit. 2. records baseline measures of patients at initial and subsequent intervals. 1. takes pap smear. 2. carries out PKU tests. 1. explains to patient such tests as IVP, Ba enema, Gall Bladder Series. 2. interprets preparation for these tests. 1. assists patient to adapt activities of daily living to be consistent with the therapeutic regime, e.g., meal spacing, diet alterations. 2. instructs patient and family to enable them to carry out techniques required by therapeutic regime, e.g., insulin administration. 3. arranges complementary health services. 4. trains the patient to recognize untoward signs and symptoms, e.g., insulin reaction. 1. takes history. 2. performs physical examination on a periodic office visit to determine stability of chronic condition, e.g., B.P. 3. refers to physician if condition is no longer stable.

Aspects of Health Care	Functions	Examples of Tasks
3. patient care in illness and disease.	<ul style="list-style-type: none"> 1. assesses patient prior to physician's definitive examination. 2. manages emergency conditions in temporary absence of the physician. 3. interprets physician's therapeutic plans. 4. carries out certain therapeutic procedures 5. co-ordinates health services to family by other members of community nursing team. 6. co-ordinates other community services relative to the health problem. 	<ul style="list-style-type: none"> 1. describes and recognizes common rashes. 2. determines factors which will affect the individual's ability to follow the therapeutic plan. 3. conducts appropriate examinations, e.g., TPR, BP, preliminary examination of ENT, chest and abdomen. 1. provides first aid, e.g., referral to emergency department for X-ray or poison control centre, gastric lavage, closed cardiac massage, resuscitation. 1. helps patient adapt his activities of daily living to include the physician's therapeutic plan, e.g., associate medication taken with daily routine, explain dietary exchanges. 1. gives injections. 2. syringes ears. 1. makes referrals to home care programmes. 2. makes referrals to public health nursing services, visiting nursing services. 1. makes referrals, in consultation with physician, to rehabilitative services, mental health services, school, social and family services. 2. contributes to family health record.

RECOMMENDATION 2

THAT, in demonstration practice settings, the role, work and efficiency of the nurse physician assistant vis-à-vis patients, the physician, other members of the nursing team, and other community health resources, be described and documented.

V. WORK ARRANGEMENTS

In working with the primary care physician, the nurse physician assistant will be based in practice offices and other ambulatory care centres in the community. Most of her time will be spent seeing patients in the office, with some home and hospital visitings as the practice arrangements and the community resources dictate.

The question of who is to pay the nurse physician assistant is a very pragmatic one. She may be employed directly by a physician, association or agency (a group association, a health centre, a local department of health); there are one or two examples of each arrangement in Ontario, either in existence or in the active planning stage. The local situation will determine which method is chosen. The question of whether the employing physician should charge fee-for-service for the work of the nurse physician assistant is one that the Committee cannot answer. The Committee recognizes the problem and recommends:

RECOMMENDATION 3

THAT methods of payment for the nurse physician assistant's services be studied in the early phases of any demonstration project.

Legal considerations are equally important. The Committee recommends:

RECOMMENDATION 4

THAT the Ontario Department of Health provide leadership in obtaining counsel on the legal aspects of the work of the nurse physician assistant.

VI. PROGRAMME OF PREPARATION

The preceding section illustrates the function and work of the nurse physician assistant; on the basis of this, a list of instructional objectives is derived. The educational programme will ensure that each nurse physician assistant is competent:

1. To take a comprehensive pertinent health/illness history, and supplement this history on subsequent visits, and to carry out an effective interview.
2. To perform physical examinations of patients including inspection, palpation, percussion, auscultation. (Includes skills in the use of diagnostic instruments such as the stethoscope, otoscope and ophthalmoscope.)
3. To describe findings such as inflamed ear drums, inflamed tonsils, skin rashes and enlarged nodes.
4. To perform routine diagnostic procedures.
5. To know the action, schedules, dosages and details of the administration of common medications.
6. To supervise the carrying out of a therapeutic plan.
7. (a) To teach individuals and groups health maintenance.
(b) To teach families about normal growth and development and family and child relationships, since this understanding affects health maintenance.
(c) To teach individuals and families to meet nutritional requirements by understanding nutritional needs, cultural and social implications in diet, food budgeting, dietary exchanges.
(d) To teach patients to adapt their activities of daily living to be consistent with the modern management of such diseases as obesity, allergy, gastro-intestinal disturbances.
(e) To carry out certain preventive and therapeutic procedures, e.g., immunization, pap smears, PKU. tests, allergy desensitization programmes, etc.

- (f) To interpret to patient such tests as the pap smear.
- 8. To apply principles of first aid.
- 9. To collaborate with other members of the community nursing team.
- 10. To make appropriate referrals to other community health and social services.
- 11. To utilize effectively clerical and laboratory personnel.

The training programme for each student should be flexible as to total content, and time required, the determining factors being the skills and knowledge that the candidate possesses compared with the instructional objectives. Eventually a common educational core will be established for nurse physician assistants to ensure that their proficiency will be recognized wherever they may choose to work. Over the next few years, the identity and the role of the nurse physician assistant will become clearer and the "core curriculum" will evolve accordingly.

Incorporation of a *complete* training programme for nurse physician assistants into a fully employed nurse's work schedule, as an "on-the-job" training situation, is judged to be unsound. It is believed that full-time or major part-time attendance in a prescribed programme will be required to encompass the core curriculum. Ultimately, each physician and nurse physician assistant working together will mutually determine how far beyond this core curriculum they wish to go.

Each programme, even in this time of trial and experimentation, should be the responsibility of a programme director. In addition, an advisory committee of physicians, nurses and educators should be appointed, the better to aid the proposed teaching staff to define precisely the aims of the programme. The objectives of medicine and nursing will have to be stated if training is to lead to the production of persons who can complement the physician's activities in providing health care. The programme will not simply teach new techniques.

In the early stages of the development of training programmes for nurse physician assistants, it is believed that the health sciences complex is the appropriate location. This centre possesses the variety

of teaching and clinical staff and research resources that may be required. This should not be construed that, in the earliest development of training programmes, such programmes must necessarily be university or hospital or community college recognized or based. It is envisaged that interested staff from these institutions plus community private practitioners and nurses will begin informal discussions on an ad hoc basis leading to a plan of action for mounting the initial programmes; following these will evolve more formalized relationships whose precise patterns cannot now be accurately forecast.

RECOMMENDATION 5

THAT pilot programmes of training for the nurse physician assistant be established within health sciences complexes to capitalize on available clinical, educational and research resources.

RECOMMENDATION 6

THAT an advisory committee for each pilot project be established with the responsibility to define the aims of the programme and its ongoing evaluation.

RECOMMENDATION 7

THAT the advisory committees, referred to in Recommendation 6, work with the health sciences complexes and hospitals and/or associated Colleges of Applied Arts and Technology to plan a suitable curriculum for educational programmes for nurse physician assistants at the earliest possible date, and receive fiscal support to do so.

VII. SELECTION OF CANDIDATES

Candidates for nurse physician assistant preparation will be drawn from the pool of registered nurses. The question of the amount of work experience is at present debatable. It would appear reasonable to suggest that candidates should have one year's clinical experience beyond qualification. The Committee recommends that this matter be studied during the early pilot training programmes.

An important point that physicians, nurses and others who are involved in planning training programmes might consider is the

length of time required to prepare a degree registered nurse versus a diploma registered nurse. The Committee is of the opinion that, generally, there will be a differential as to time, content and cost but again recommends that the educational needs of these two groups be assessed and compared.

RECOMMENDATION 8

THAT the diploma registered nurse and the degree registered nurse be assessed and compared as to their respective educational needs, as to their potential for development as nurse physician assistants, as to time, course content and relative cost with respect to training programmes.

VIII. MANPOWER ESTIMATIONS

The Committee proposes that the ratio of physicians to nurse physician assistants be one-to-one for at least the immediate future. This statement is based on the opinion that substantial changes in the physician's practice pattern will occur and that the physician and nurse physician assistant will require time to adjust and accommodate to one another. In addition, if more than one nurse physician assistant works with a physician, patients might not accept what could appear to them to be a cadre of personnel interposed between them and the physician. Again, the Committee believes this is a crucial matter for study during the next few years and recommends the devising of measuring methods which could be applied in many practices.

The next question is somewhat more difficult to answer: how many nurse physician assistants should be prepared in the immediate future — say up to the summer of 1971? To answer this, a prior question is posed: how many physicians are at present willing and able (by virtue of the physical layout of their office accommodation) to employ a nurse physician assistant? On the basis of information at hand, and impressions gained from visiting experts, Committee members, and the resource staff of Research and Planning, the Committee believes that of the order of 20 physicians in each health sciences region are, at this moment, potential employers of nurse physician assistants. This equates to 100 practitioners for all of Ontario. It is true this figure is small. However, the Committee senses an attitude amongst nurses and physicians that suggests a trend

toward this new type of practice arrangement is developing. It is to guard against the over production of nurse physician assistants in the immediate future that the Committee suggests these figures as reasonable goals.

Reasoning thus, *and reserving the right to make new estimates at any time* on the basis of new information, the Committee recommends that of the order of 20 nurse physician assistants should be prepared in each health sciences complex during the winter of 1970-71.

RECOMMENDATION 9

THAT, in the initial phases of the demonstration programmes, in the practising team the ratio of physician to nurse physician assistant of one-to-one be used, and that the feasibility of this ratio be tested in the light of work experience.

RECOMMENDATION 10

THAT of the order of 100 nurse physician assistants be prepared in 1971 through the proposed pilot project programme.

RECOMMENDATION 11

THAT a survey of a cross section of family practitioners in the Province of Ontario be undertaken to determine potential future vacancies for nurse physician assistants.

The Committee is aware that the recruitment of an appreciable number of registered nurses to the position of nurse physician assistant could place pressure on the absolute numbers of nurses available for service in the province. As referenced earlier in this paper, 1,486 registered nurses were working in doctors' and dentists' offices as of 1969. This represented 3.3 per cent of the total available registered nurse manpower resources.

If the nurse physician assistant phenomenon takes root, it is foreseeable that within a few years the above figure could double or triple. This would suggest that six per cent or more of the available nurse manpower resources would be applied to this dimension of nursing practice. Would this mean a shortage of nurse manpower for some of the more established service areas such as the hospital, community nursing agencies and the like? The Committee does not

feel that the answer is necessarily yes. It is distinctly possible that the nursing profession may come to see the nurse physician assistant role and function as a legitimate and satisfying mode of nursing practice and, as such, a number of nurses who, for a variety of reasons, are out of active practice, might be attracted back. This is a matter for study; for example, the employment status of each applicant for preparation could be recorded and on the basis of this information some insight could be gained.

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